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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,405	11/04/2003	Moshe Rock	10638-067001	5742
26161	7590	09/06/2006		
FISH & RICHARDSON PC			EXAMINER	
P.O. BOX 1022			BOYD, JENNIFER A	
MINNEAPOLIS, MN 55440-1022			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/700,405	ROCK ET AL.	
	Examiner Jennifer A. Boyd	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 26 June 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-31,33 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) 6,10 and 21-25 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,7-9,11-20,26-31,33,35-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

<ol style="list-style-type: none"> <li>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.</li> </ol>	<ol style="list-style-type: none"> <li>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.</li> <li>5)<input type="checkbox"/> Notice of Informal Patent Application</li> <li>6)<input type="checkbox"/> Other: _____.</li> </ol>
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## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed June 16, 2006, have been entered and have been carefully considered. Claims 1, 5, 7 – 9, 29, 35 and 26 are amended, claims 6, 10 and 21 – 25 are withdrawn and claims 1 - 31, 33 and 35 – 40 are pending. In view of Applicant's amendment to claim 29, the Examiner withdraws the 35 USC 112, 2<sup>nd</sup> paragraph rejection as detailed in the Office Action dated March 31, 2006. In view of Applicant's Terminal Disclaimer over Application 10/911,855, the Examiner withdraws the double patenting rejection as detailed in the Office Action dated March 31, 2006. In view of Applicant's amendments to claim 1 and the abandonment of application 10/650,098, the Examiner withdraws the remaining double patenting rejections as detailed in the Office Action dated March 31, 2006. In view of Applicant's amendment requiring that the coating material is disposed in one or more areas of an *exposed* outer surface of the fabric, the Examiner withdraws all previously set forth rejections as detailed in Office Action dated March 31, 2006. After another search was conducted, additional prior art has been found which renders in the invention as currently claimed unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 5, 7 – 9, 11, 14, 16, 33 and 35 – 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Gunzel et al. (WO 01/12889).

Gunzel is directed to a treated fabric (Title) suitable for applications such as garments, tenting, footwear, bivy bags and other protective coverings or shelters and the like (page 3, lines 20 – 26).

Gunzel teaches a woven or knitted fabric having a discontinuous randomly disposed polymeric material (page 3, lines 25 – 35). Gunzel teaches that the woven or knitted fabric can have a surface that is fleeced or sanded (page 5, lines 20 – 30). Gunzel teaches that the use of the polymer areas provide better local abrasion resistance needed around cuffs, collars, pocket edges and generally any folds or creases (page 6, lines 20 – 30). Gunzel teaches that, despite the use of the polymer coating, the fabric maintains good moisture vapor transmission (page 3, lines 15 – 20). The Examiner submits that coating will have a minimal effect on the insulation performance as claimed by Applicant because Gunzel meets all the claimed physical and chemical limitations. See Figures 1 – 6 in regards to the configuration of the discrete areas of coating. Gunzel teaches that the polymer coating reduces local abrasion and, therefore, would provide a different performance characteristic in regards to pilling. Additionally, the use of coating in discrete areas would inherently create a difference between the coated areas and the uncoated areas in regards

to air permeability because the presence of coating would cause the fabric to be less permeable. Gunzel teaches that the fabric can comprise yarns made of polyester (page 5, lines 20 – 30) as required by claim 14. Gunzel teaches that the polymer coating can comprise polyurethane, polyamide, polyolefin, polyester, silicone, acrylic and the like (page 5, lines 30 – 35) as required by claim 16. Gunzel teaches that the fabric can be used in a garment which means any article that can be worn such as footwear, hats, gloves, shirts, coats, trousers (page 4, lines 30 – 35) as required by claims 33 and 35 - 36. It should be noted that “elbow region” and “shoulder region” are not given patentable weight because there is no special relationship or structure provided by those limitations. Furthermore, Gunzel teaches reinforcing such apparel and indicate that it is desirable to use the coating in areas that are subject to abrasion. Gunzel teaches that the coating is applied at 5 to 40 gsm (0.14 – 1.18 ounces per square yard) as required by claim 37.

***Claim Rejections - 35 USC § 102/103***

5. Claims 12 – 13 and 39 – 40 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gunzel et al. (WO 01/12889).

As to claims 12 – 13, although Gunzel does not explicitly teach the claimed bound groupings of yarns have a relatively higher tenacity than individual yarn fibers and that the bound groupings have a tenacity greater than 5 grams per denier, it is reasonable to presume that the claimed properties are inherent. Support for said presumption is found in the use of like materials ([i.e. a knitted polyester fabric having a discrete polymer coating comprising Applicant’s claimed polymers) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently

claimed properties would obviously have been present once the Gunzel product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 USC 102.

As to claims 39 – 40, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the Applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Gunzel teaches a discontinuous coating which meets the structural limitations as required by Applicant.

#### ***Claim Rejections - 35 USC § 103***

6. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel et al. (WO 01/12889) in view of Blauer et al. (US 5,626,949).

Gunzel teaches the claimed invention above but fails to teach that the coating segments are in discrete dots.

Blauer is directed to a breathable shell for outerwear (Title). Blauer teaches coating the fabric with a unconnected patterns such as a set of dots (column 3, lines 60 – 69 and column 4, lines 1 – 10). The printed stratum provides the shell with a good appearance (column 3, lines 55 – 60) while providing breathability and unraveling (column 3, lines 55 – 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a pattern of dots as suggested by Blauer for application of the coating when used in Gunzel motivated by the desire to maintain the fabric's appearance while still providing reinforcement in areas.

7. Claims 17 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel et al. (WO 01/12889) in view of Rock et al. (US 2001/0046580).

Gunzel teaches the claimed invention above but fails to teach using a circular reverse plaited knit construction as required by claim 17. Gunzel fails to teach that the stitch yarn is finer than the loop yarn as required by claim 18. Gunzel fails to teach that the loop yarn is at most about 1.5 dpf and the stitch yarn is at least about 1.5 dpf as required by claims 19 and 20.

Rock is directed to double-face velour fabric articles having improved dynamic insulation performance (Title) suitable for apparel applications (page 1, paragraph 9). Rock teaches that the knitted fabric has a technical face formed by a micro-denier filament stitch yarn and a technical back formed by a micro-denier filament loop yarn (Abstract). Rock teaches that using a reverse plaiting technique in circular knit fabrics can provide dynamic thermal insulation properties (paragraphs 7 and 8). Rock teaches that the loop yarn should be greater in size than the stitch yarn (paragraph 21) and Rock teaches that the loop yarn to have a dpf as low as 0.5 (paragraph 19) and the stitch yarn to have a dpf as high as 3.0 (paragraph 20). Rock teaches that enhanced performance of the fabric is achieved by increasing the yarn count and filament count to make the paths through the fabric more tortuous, thus making it more difficult for air to penetrate quickly through the double-face velour fabric article (page 3, paragraph 27).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a reverse plaited circular knit fabric having a stitch yarn as low as 0.5 dpf and stitch yarn as high as 3.0 dpf in Gunzel in order to create a fabric with enhanced thermal insulation, as taught by the Rock.

8. Claims 26 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel et al. (WO 01/12889) in view of Ido et al. (US 5,456,960).

Gunzel teaches the claimed invention above but fails to teach that the yarn includes an elastomeric material on the outer surface as required by claim 26. Gunzel fails to teach that the elastomeric material is in the form of spandex added to the yarn at the outer surface in plaited form as required by claim 27. Gunzel fails to teach that the elastomeric material is wound around the yarn at the outer surface as required by claim 28. Gunzel fails to teach that that spandex is added at the outer surface in air jet cover as required by claim 29.

Ido is directed to a knitted fabric comprising a polyurethane elastic fiber and a polyamide or polyester fiber (Abstract). Ido notes that the polyurethane elastic fiber may be used as a cover yarn for the polyester yarn (column 3, lines 10 – 15). Ido teaches that the use of a polyurethane elastic fiber in a knitted garment provides superior mechanical properties in tensile stress and recoverability and excellent thermal properties. For this reason, they have been given much attention in apparel applications such as foundation garments, socks, sportswear, etc. (column 1, lines 20 – 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an elastic polyurethane fiber as a covering yarn as suggested by Ido motivated

by the desire to create a fabric highly suitable for apparel having superior mechanical properties in tensile stress and recoverability and excellent thermal properties.

9. Claims 30 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel et al. (WO 01/12889) in view of Muramoto et al. (US 5,171,633).

Gunzel teaches the claimed invention above but fails to teach that the yarns at the outer surface include cored yarns comprising a core and a sheath as required by claim 30 and that the core comprises an elastomeric material as required by claim 31.

Muramoto is directed to an elastic filament yarn for use in applications such as socks, panty hose, swimsuits and foundation garments (Abstract). The elastic filament yarn has polyester in the sheath component and polyurethane in the core component (Abstract).

Muramoto teaches that the yarns can be used alone or used as a covering yarn where conventional polyurethane yarns have been used (column 24, lines 1 – 15). Muramoto teaches that the yarn exhibits good heat resistance, low stress and made using a conventional spinning process.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use sheath-core polyurethane yarns as suggested by Muramoto in the knitted fabric of Gunzel motivated by the desire to create a fabric suitable for garments having good mechanical properties.

10. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel et al. (WO 01/12889).

Gunzel fails to disclose that the coating is applied in the amount of about 1.7 ounces per square yard. However, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of coating since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454 USPQ 233 (CCPA 1955). In the present invention, one would have been motivated to optimize the amount of coating based on the desired level of abrasion resistance and fabric softness.

#### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1 - 31, 33 and 35 - 40 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*JB*  
Jennifer Boyd  
August 31, 2006

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